

Notice of Allowability

Application No.

09/264,501

Examiner

Nhan T. Tran

Applicant(s)

PANICACCI ET AL.

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 9/27/2004.
2. ☒ The allowed claim(s) is/are 11,14,16,24 and 28-30.
3. ☒ The drawings filed on 02 April 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☒ to Paper No./Mail Date 10.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 10.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see amendment after final, filed 9/27/2004, with respect to the rejection of claims 24, 28-30 under USC 112 have been fully considered and are persuasive (in addition to the Examiner's amendment set forth below). Therefore, the rejection has been withdrawn.

Drawings

2. The *proposed* drawing correction was received on 4/2/2003. The drawing is Fig. 4.

However, new corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings are informal. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with **Christopher Chow** on 11/04/2004.

The application has been amended as follows:

Regarding claim 24, please change "said analog-to-digital **converting**" in the first line of page 7 to --said analog-to-digital **converter**--, and also change "**the capacitor** in the first network" in line 4 of page 7 to --**capacitors** in the first network--.

Regarding claim 28, please change "said analog-to-digital **converting**" in line 10 of page 8 to --said analog-to-digital **converter**--, and also change "**the capacitor** in the first network" in line 16 of page 8 to --**capacitors** in the first network--.

Regarding claim 29, please change "said analog-to-digital **converting**" in line 19 of page 9 to --said analog-to-digital **converter**--, and also change "**the capacitor** in the first network" in line 5 of page 10 to --**capacitors** in the first network--.

Regarding claim 30, please change "said analog-to-digital **converting**" in line 10 of page 11 to --said analog-to-digital **converter**--, and also change "**the capacitor** in the first network" in line 16 of page 11 to --**capacitors** in the first network--.

Allowable Subject Matter

4. Claims 11, 14, 16, 24, 28-30 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claims 11 & 24, the prior art of record fails to teach or fairly suggest the *combination of all limitations* required in each of claims 11 and 24, including the limitations "...each of the capacitors in the first capacitor network has an associated latch circuit for storing a bit corresponding to a differential signal for a pixel sampled by the first sample-and-hold circuit while a differential signal for a pixel sampled by the second sample-and-hold circuit is amplified and converted to a corresponding digital signal."

Regarding claims 14 & 28, the prior art of record also fails to teach or fairly suggest the *combination of all limitations* required in each of claims 14 and 28, including the limitations "...the calibration network selectively can be enabled to provide a voltage shift (or a DC shift) to the common node to ensure that the signal for canceling the comparator offset appears as a positive voltage."

Regarding claims 16 & 29, the prior art of record also fails to teach or fairly suggest the *combination of all limitations* required in each of claims 16 and 29, including the limitations "...one side of each capacitor in the first capacitor network selectively can be connected to a first reference voltage, and wherein one side of each capacitor in the second capacitor network selectively can be connected to a second reference voltage different from the first reference voltage."

Art Unit: 2615

Regarding claim 30, the prior art of record also fails to teach or fairly suggest the *combination of all limitations* required in claim 30, including the limitations "...the capacitor in the first network share a common node coupled to a first input of the comparator, the amplified differential output signal from the charge sensing circuit is coupled to a second input of the comparator, the capacitors in the second capacitor network share a node in common with the capacitors in the first capacitor network, and the calibration network selectively can be enabled to provide a post-gain offset for the differential output signal from the charge sensing circuit."

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

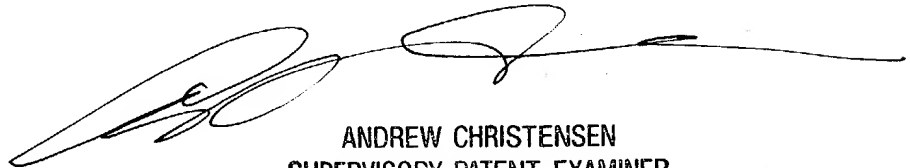
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (703) 605-4246. The examiner can normally be reached on Monday - Thursday, 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew B Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2615

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NT.

A handwritten signature in black ink, appearing to read 'Andrew Christensen', with a long horizontal flourish extending to the right.

ANDREW CHRISTENSEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600